

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **06010695 A**

(43) Date of publication of application: **18.01.94**

(51) Int. Cl.

**F02B 69/06**

**F02B 37/00**

(21) Application number: **04192764**

(71) Applicant: **ISUZU MOTORS LTD**

(22) Date of filing: **29.06.92**

(72) Inventor: **MATSUOKA HIROSHI**

(54) **2-4 STROKE SWITCHING ENGINE**

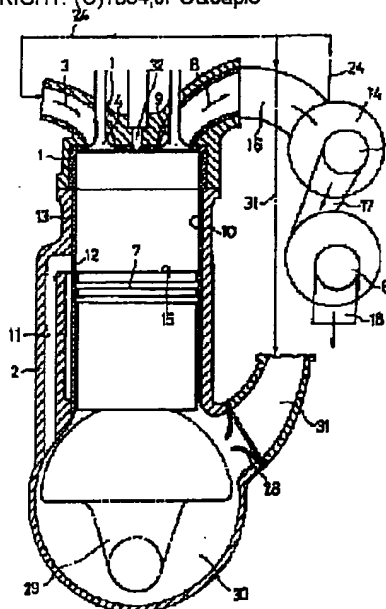
process, and thus the intake efficiency is improved.

(57) Abstract:

COPYRIGHT: (C)1994,JPO&Japio

PURPOSE: To obtain a 2-4 strokes switching engine which performs scavenging through a scavenging port during 4-stroke operation and thus improves heat efficiency.

CONSTITUTION: An intake valve 4 arranged on a cylinder head 1 is held in a blocked condition during 2-stroke operation, and opened/closed during 4-stroke operation, for performing intake. New air is sent into a cylinder from an exhaust port 12 on a lower side of the cylinder for scavenging in an initial period of an exhaust process of the 4-stroke operation. Supercharge air from a turbocharger 5 is compressed again in a crank case 30 for supplying to the scavenging port 12. The space inside the cylinder is forcibly scavenged in an exhaust process of the 4-stroke operation, so that an amount of the residual gas in the cylinder gets extremely small. The new air receives heat from a wall surface at the scavenging time in the 4-stroke operation, and energy is recovered by the turbocharger 5 and the like, for improving heat efficiency. The intake air is flowed from the scavenging port 12 into the cylinder again near the termination of the intake





(19)

(11) Publication number:

**06010695 A**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **04192764**(51) Intl. Cl.: **F02B 69/06 F02B 37/00**(22) Application date: **29.06.92**

(30) Priority:

(43) Date of application  
publication: **18.01.94**(84) Designated contracting  
states:(71) Applicant: **ISUZU MOTORS LTD**(72) Inventor: **MATSUOKA HIROSHI**

(74) Representative:

**(54) 2-4 STROKE  
SWITCHING ENGINE**

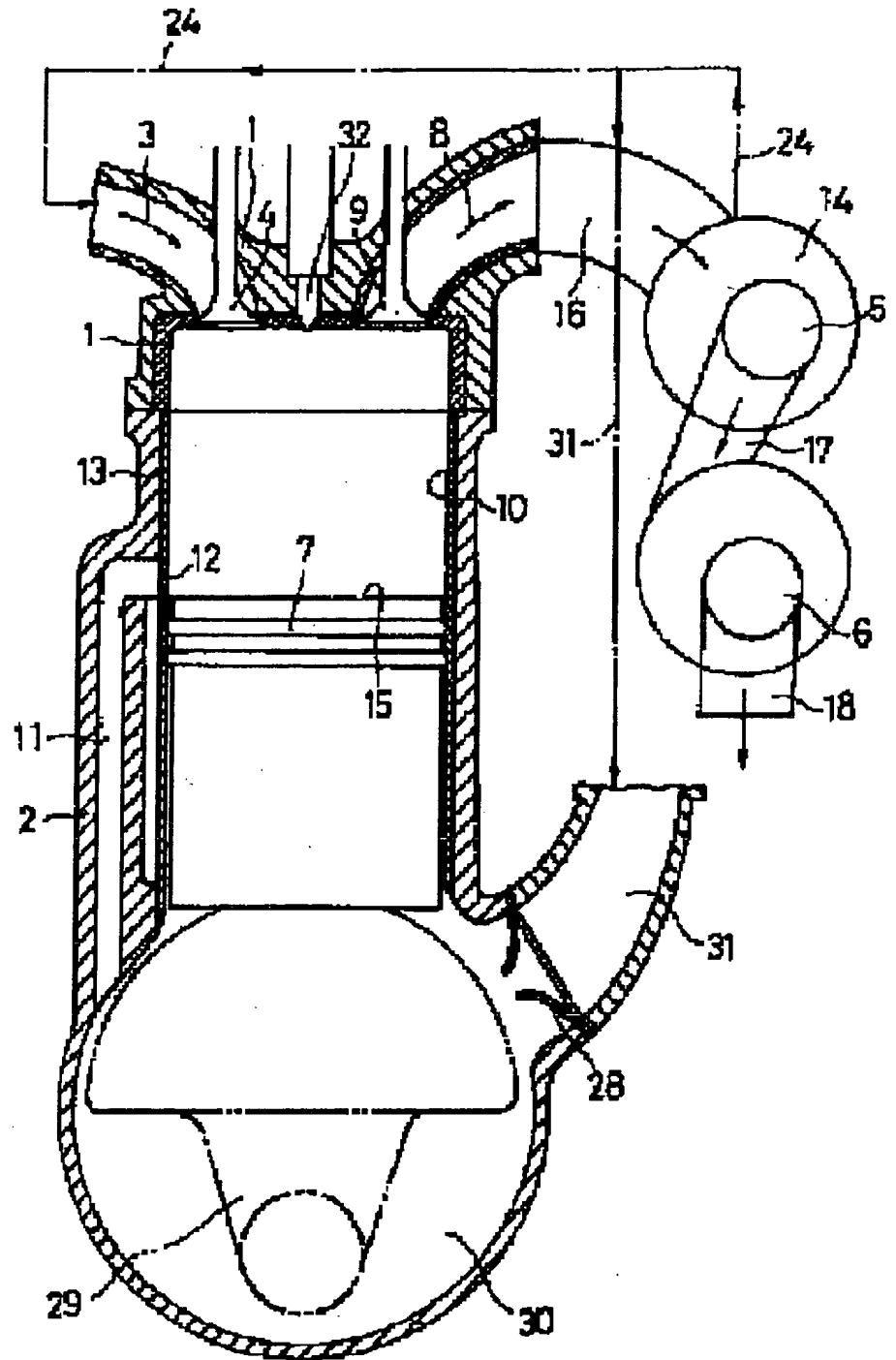
(57) Abstract:

**PURPOSE:** To obtain a 2-4 strokes switching engine which performs scavenging through a scavenging port during 4-stroke operation and thus improves heat efficiency.

**CONSTITUTION:** An intake valve 4 arranged on a cylinder head 1 is held in a blocked condition during 2-stroke operation, and opened/closed during 4-stroke operation, for performing intake. New air is sent into a cylinder from an exhaust port 12 on a lower side of the cylinder for scavenging in an initial period of an exhaust process of the 4-stroke operation. Supercharge air from a turbocharger 5 is compressed again in a crank case 30 for supplying to the scavenging port 12. The space inside the cylinder is forcibly scavenged in an exhaust process of the 4-stroke operation, so that an amount of the residual gas in the cylinder gets extremely small. The new air receives


heat from a wall surface at the scavenging time in the 4-stroke operation, and every is recovered by the turbocharger 5 and the like, for improving heat efficiency. The intake air is flowed from the scavenging port 12 into the cylinder again near the termination of the intake process, and thus the intake efficiency is improved.

COPYRIGHT: (C)1994,JPO&Japio



DELPHION		RESEARCH	PRODUCTS	INSIDE DELPHION
Log Out	Work Files	Saved Searches	My Account   Products	Search: Quick/Number Boolean Advanced

## The Delphion Integrated View

Get Now: <input checked="" type="checkbox"/> PDF   More choices...		Tools: Add to Work File: Create new Wo	
View: INPADOC   Jump to: Top		Email	
<p>Title: <b>JP6010695A2: 2-4 STROKE SWITCHING ENGINE</b></p> <p>Country: JP Japan</p> <p>Kind: A</p> <p>Inventor: MATSUOKA HIROSHI;</p> <p>Assignee: ISUZU MOTORS LTD  <a href="#">News, Profiles, Stocks and More about this company</a></p> <p>Published / Filed: 1994-01-18 / 1992-06-29</p> <p>Application Number: JP1992000192764</p> <p>IPC Code: F02B 69/06; F02B 37/00;</p> <p>Priority Number: 1992-06-29 JP1992000192764</p> <p>Abstract:</p> <p>PURPOSE: To obtain a 2-4 strokes switching engine which performs scavenging through a scavenging port during 4-stroke operation and thus improves heat efficiency.</p> <p>CONSTITUTION: An intake valve 4 arranged on a cylinder head 1 is held in a blocked condition during 2-stroke operation, and opened/closed during 4-stroke operation, for performing intake. New air is sent into a cylinder from an exhaust port 12 on a lower side of the cylinder for scavenging in an initial period of an exhaust process of the 4-stroke operation. Supercharge air from a turbocharger 5 is compressed again in a crank case 30 for supplying to the scavenging port 12. The space inside the cylinder is forcibly scavenged in an exhaust process of the 4-stroke operation, so that an amount of the residual gas in the cylinder gets extremely small. The new air receives heat from a wall surface at the scavenging time in the 4-stroke operation, and every is recovered by the turbocharger 5 and the like, for improving heat efficiency. The intake air is flowed from the scavenging port 12 into the cylinder again near the termination of the intake process, and thus the intake efficiency is improved.</p> <p>COPYRIGHT: (C)1994,JPO&amp;Japio</p>			
<p>INPADOC Legal Status: None</p> <p>Family: Show 2 known family members</p> <p>Other Abstract Info: None</p>		<p>Get Now: <a href="#">Family Legal Status Report</a></p>	

**BEST AVAILABLE COPY**